

REMARKS / ARGUMENTS

The present application includes pending claims 1-27. Claims 3, 6-7, 11, 13, and 22 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. By this Amendment, claims 2-8, 10-14, 16-23, and 25 have been amended, as set forth above, to correct for minor typographical errors. The Applicant respectfully submits that the claims define patentable subject matter.

Claims 1, 4-5, 8-9, 12, 14, 20, and 23-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2002/0141441, issued to Neumann, et al. (hereinafter, Neumann), in view of U.S. Patent No. 6,834,091, issued to Litwin, et al. (hereinafter, Litwin), and further in view of U.S. Patent Publication No. 2001/0055980, issued to Sato (hereinafter, Sato). Claims 2, 10, 15-18, and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Neumann, in view of Litwin, further in view of Sato, and still further in view of U.S. Patent No. 6,810,405, issued to LaRue, et al. (hereinafter, LaRue). Claim 19 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Neumann, in view of Litwin, further in view of Sato, and further in view of LaRue, and still further in view of alleged well known prior art (MPEP 2144.03). The Applicant respectfully traverses these rejections at least for the reasons previously set forth during prosecution and at least based on the following remarks.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure (“MPEP”) states the following:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the teaching. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure.

See MPEP at § 2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (emphasis added). Further, MPEP § 2143.01 states that “the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination,” and that “although a prior art device ‘may be capable of being modified to run the way the apparatus is claimed, there must be a *suggestion or motivation in the reference* to do so’” (citing *In re Mills*, 916 F.2d 680, 16 USPQ 2d 1430 (Fed. Cir. 1990)). Moreover, MPEP § 2143.01 also states that the level of ordinary skill in the art cannot be relied upon to provide the suggestion...,” citing *Al-Site Corp. v. VSI Int’l Inc.*, 174 F.3d 1308, 50 USPQ 2d 1161 (Fed. Cir. 1999). Additionally, if a *prima facie* case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness.

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

I. The Proposed Combination of Neumann, Litwin and Sato Does Not Render Claims 1, 4-5, 8-9, 12, 14, 20, and 23-27 Unpatentable

The Applicant turns to the rejection of claims 1, 4-5, 8-9, 12, 14, 20, and 23-27 as being unpatentable over Neumann in view of Litwin and Sato.

A. The Proposed Combination Does Not Teach or Suggest “Said Host Baseband Processor Enables Timing Synchronization ... On The Basis Of Timing Information Transferred To Said Host Baseband Processor From Said Baseband Co-Processor”

With regard to the rejection of independent claim 1 under 103(a), the Applicant submits that the combination of Neumann-Litwin-Sato does not disclose or suggest at least the limitation of “said host baseband processor enables timing synchronization between said first and second wireless communications systems on the basis of timing information transferred to said host baseband processor from said baseband co-processor,” as recited by the Applicant in independent claim 1 (emphasis added).

Neumann discloses a wireless telephone that includes a first and second baseband processors. The first baseband processor (GSM) functions as a system master, and the second processor (TDMA) functions as a system slave. The first

baseband processor interfaces to the system controls, such as power supply, man machine interface (MMI), and the like. See Neuman at Abstract.

The Office Action concedes in page 3 thereof, that “Neumann does not specifically disclose the host baseband processor enables timing of synchronization between the first and second wireless communication systems.” To overcome this deficiency, the Office Action relies on Previously Presented 16 and 90 of Sato. Sato, at ¶¶ 16 and 90, simply discloses that handover between different communication systems by “maintaining the system timing synchronization to support the communications system of the handover destination.” See Sato at ¶¶ 16 and 90. The Applicant points out that Sato, including ¶¶ 16 and 90 of Sato, does not disclose or suggest any synchronization between two communication systems, as stated by the Examiner. For example, Sato discloses “maintaining *the system* timing synchronization,” which refers to the phone terminal that performs the handover. Therefore, the Applicant submits that Sato does not overcome any of the deficiencies of Neumann.

Even assuming for the sake of argument that Sato discloses timing synchronization between two communication systems, as alleged by the Examiner, the Examiner’s argument is still deficient. Initially, the Applicant points out that the Examiner has conceded that “the combination of Neumann/Sato does not specifically disclose the timing synchronization based on transmitted timing information in the format claimed by applicant.” See the Office

Action at page 3. The Examiner then relies for support on Litwin and states the following:

Litwin discloses that timing synchronization between two sources is performed based on transmitted timing information (col. 2, lines 45-62, timing synchronization is maintained between a transmitter and a receiver in accordance with timing information").

See *id.* The Applicant points out that the "format claimed by the Applicant" is timing synchronization based on timing information transferred to a host baseband processor from a baseband co-processor within a multi-mode wireless communication device. In other words, **the Examiner has conceded that the combination of Neumann/Sato does not specifically disclose timing synchronization based on timing information transferred to a host baseband processor from a baseband co-processor within a multi-mode wireless communication device.**

The Applicant would like to emphasize that **the important issue here is not whether or not Neumann-Sato discloses timing synchronization, but how timing synchronization is in fact achieved.** For example, the Applicant achieves timing synchronization on the basis of timing information that is transferred to the host baseband processor from the baseband co-processor, as recited in claim 1. **Neumann-Sato does not disclose or suggest timing synchronization on the basis of timing information that is transferred to the host baseband processor from the baseband co-processor, as recited in claim**

1. To address these deficiencies of Neumann and Sato, the Examiner relies on col. 2, lines 45-62 of Litwin.

Initially, the Applicant points out that Litwin relates to a powerline modem network and does not relate to multi-mode wireless devices. Furthermore, Litwin, at col. 2, lines 45-62, simply discloses that a synchronization signal may be transmitted over a powerline network, using a carrier operating at a frequency different than the data carriers. The Applicant points out that **neither Litwin, including col. 2, lines 45-62, nor Neumann-Sato disclose or suggest that timing synchronization is achieved on the basis of timing information that is transferred to a host baseband processor from a baseband co-processor within a multi-mode wireless communication device. In fact, none of the cited references (Neumann, Sato and Litwin) disclose a baseband processor, a baseband co-processor, or even transferring of any information between the baseband processor and the baseband co-processor. Furthermore, none of the cited references (Neumann, Sato and Litwin) disclose transfer of any information between two processors within the same multi-mode wireless communication device, as recited in Applicant's claim 1.**

Therefore, the combination Neumann-Sato-Litwin does not disclose or suggest at least the limitation of "said host baseband processor enables timing synchronization between said first and second wireless communications systems on the basis of timing information transferred to said host baseband processor

from said baseband co-processor,” as recited by the Applicant in independent claim 1. Accordingly, the proposed combination of Neumann-Sato-Litwin does not render independent claim 1 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 1 is allowable. Independent claims 9 and 20 are similar in many respects to the device disclosed in independent claim 1. Therefore, the Applicant submits that independent claims 9 and 20 are also allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1.

B. Rejection of Dependent Claims 4-5, 8, 12, 14, and 23-27

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 9 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Neumann in view of Sato and Litwin has been overcome and requests that the rejection be withdrawn. Additionally, claims 4-5, 8, 12, 14, and 23-27 depend from independent claims 1, 9, and 20, respectively, and are also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 1, 4-5, 8-9, 12, 14, 20, and 23-27.

II. The Proposed Combination of Neumann, Sato, Litwin, and LaRue Does Not Render Claims 2, 10, 15-18, and 21 Unpatentable

The Applicant turns to the rejection of claims 2, 10, 15-18, and 21 as being unpatentable over Neumann in view of Sato, Litwin, and LaRue.

A. The Proposed Combination Does Not Teach or Suggest “Generating Within A Multi-Mode Communication Device, A Timer Capture Interrupt During A Predetermined Timing Phase Of A First Wireless Communication System”

With regard to the rejection of independent claim 15 under 35 U.S.C. § 103(a), the Applicant submits that the combination of Neumann, Sato, Litwin, and LaRue does not disclose or suggest at least the limitation of **“generating within a multi-mode communication device, a timer capture interrupt during a predetermined timing phase of a first wireless communication system,”** as recited by the Applicant in independent claim 15 (emphasis added).

In regard to claim 15, the Office Action, at page 7, concedes the following:

Neumann does not specifically disclose generating a timer capture interrupt in the format claimed by applicant.

The Examiner then relies on LaRue for the deficiencies of Neumann, and states the following:

However, the concepts of initiating or generating a timer capture for the purposes of synchronization is well known in the art, as LaRue discloses that a synchronization process is activated in response to a timer interrupt (col. 4, lines 1-15, col. 26, lines 27-63 and col. 27, lines 49-65, "activating a synchronization function, in response to a

time interrupt", "waits for a synchronization event to occur, such as ... a timer interrupt").

See *id.* The Applicant points out that **the issue is not whether or not an interrupt is generated by how the timer capture interrupt is generated.** For example, the Applicant generates a timer capture interrupt **during a predetermined timing phase** of a first wireless communication system. To contrast, LaRue discloses that a timer interrupt occurs (or the timer interrupt is generated) **only when a synchronization timer expires**. See LaRue at col. 26, lines 37-38. Obviously, LaRue does not disclose or suggest that a timer capture interrupt during a predetermined timing phase of a first wireless communication system.

Therefore, the Applicant maintains that LaRue does not disclose or suggest at least the limitation of "generating within a multi-mode communication device, a timer capture interrupt during a predetermined timing phase of a first wireless communication system," as recited by the Applicant in independent claim 15. Neumann, Sato and Liwin does not overcome the above stated deficiency of LaRue.

Accordingly, the proposed combination of Neumann, Sato, Liwin and LaRue does not render independent claim 15 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 15 is allowable.

**B. The Proposed Combination Does Not Teach or Suggest
“Determining A Timing Relationship Between Said First And
Second Wireless Communication Systems Based Upon Said
Timer Value”**

With regard to the rejection of independent claim 15 under 103(a), the Applicant submits that the combination of Neumann-Sato-Litwin-LaRue does not disclose or suggest at least the limitation of **“determining a timing relationship between said first and second wireless communication systems based upon said timer value,”** as recited by the Applicant in independent claim 15 (emphasis added).

The Examiner concedes the following:

The combination of Neumann/LaRue/Sato does not specifically disclose ... determining a timing relationship between first and second wireless communication systems based upon the timer value in the format claimed by the Applicant.

See the Office Action at page 8. The Examiner relies for support on Litwin and states the following:

Litwin discloses that timing synchronization between two sources is performed based on transmitted timing information (col. 2, lines 45-62, timing synchronization is maintained between a transmitter and a receiver in accordance with timing information”).

See *id.* Initially, the Applicant points out that Litwin relates to a powerline modem network and does not relate to multi-mode wireless devices. Furthermore, Litwin, at col. 2, lines 45-62, simply discloses that a synchronization signal may be

transmitted over a powerline network, using a carrier operating at a frequency different than the data carriers. The Applicant points out that **neither Litwin, including col. 2, lines 45-62, nor Neumann-Sato-LaRue disclose or suggest that a timing relationship between a first and a second wireless communication system may be determined, where the timing relationship is determined based on a timer value stored in response to a timer capture interrupt generated during a predetermined timing phase,** as recited in Applicant's claim 15.

Accordingly, the proposed combination of Neumann-Sato-Litwin-LaRue does not render independent claim 15 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 15 is allowable.

C. Rejection of Dependent Claims 2, 10, 16-18, and 21

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 9, 15 and 20 under 35 U.S.C. § 103(a) has been overcome and requests that the rejection be withdrawn. Additionally, claims 2, 10, 16-18, and 21 depend from independent claims 1, 9, 15 and 20, respectively, and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 2, 10, 16-18, and 21.

III. Rejection of Dependent Claim 19

The additional cited reference (MPEP 2144.03) does not overcome the deficiencies of Neumann-Sato-Litwin-LaRue, claim 19 depends from independent claim 15 and is, consequently, also respectfully submitted to be allowable at least for the reasons stated above.

Based on at least the foregoing, the Applicant believes the rejection of dependent claim 19 under 35 U.S.C. § 103(a) as being unpatentable over Neumann in view of Litwin, and further in view of Sato, LaRue and MPEP 2144.03 has been overcome and requests that the rejection be withdrawn.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 19.

IV. Allowable Subject Matter

Claims 3, 6-7, 11, 13, and 22 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. The Applicant has added new claims 28-43, based on the objected to claims.

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Therefore, the Applicant submits that all claims 1-43 are now allowable over the references cited in the Office Action.

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CONCLUSION

Based on at least the foregoing, the Applicant believes that all claims 1-43 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and request that the Examiner telephone the undersigned Attorney at (312) 775-8176.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

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